



### UNITED STATE DEPARTMENT OF COMMERCE Patent and Trademark Offic

Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. HM11/0726 **EXAMINER** FOLEY AND LARDNER .3000 K STREET N.W. STE 500 WASHINGTON DC 20007-5109 **ART UNIT** PAPER NUMBER 07/26/00 DATE MAILED: Please find below and/or attached an Office communication concerning this application or proceeding. **Commissioner of Patents and Trademarks** ACTION DUE MICE CLIENT/MATTER#5 DUE DATE K DKTD BY\_ ATTY HOW Kn



# UNITED STATES DEPARTMENT OF COMMERCE Patent at demark Office

Address : COMMISSIONER-OF-PATENTS AND TRADEMARKS -- Weshingt n, D.C. 20231

	SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.		
		<u> </u>				
			٦ 🗀	EXAMINER		
			Al	RT UNIT PAPER NUMBER		
· · · - ·						
			DATE	MAILED:		
			,			
	Massa find below		om the EXAMINER in charge of this application.			
•	riease mid belov	v a communication if	<del>-</del>	stioner of Patents and Trademarks		
	D			·		
	-	ommunication Filed	•			
	The enclosed is a	correct copy of a ref	Gerence relating to the last Office action. The corre	ection is indicated below.		
		OR RESPONSE OF		n said office action is		
	RESTARTED T	O BEGIN WITH THE	DATE OF THIS LETTER.			
		rrect Reference Citati		·		
	Part 1-Co	rrect Reference Citat		1 17/2/		
	Re	mailia	Office octum of	wie saldies		
	W	dich w	as marted to w	ware saldies		
	by					
		Exam	iner			
	Part 2 - Co	rrect Reference Furni	ished:			
			De	and the state of t		
	. ——			OONNA CHAPMAN PERVISORY, LEGAL		
		<u> </u>		RUMENTS EXAMINER GROUP 1800-/600		
	by	Pol-	ence Order Center 70	3-3083081		
		Rejer	ence Order Center	<u> </u>		

enc.

AND PLACE



## UNITED STATE DEPARTMENT OF COMMERCE Patent and Trad mark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR			АП	ORNEY DOCKET NO.
09/114,3	14,285 07/13/98 TSUCHIYA		M	53466/204
,		HM22/0703	EXA	AMINER
- FOLEY AM	ND LARGNER	BANSA	L,G	
	STREET, N.W.,	SUITE 500	ART UNIT	PAPER NUMBER
PO BOX : WASHING:	18218 FON DC 20007-	5109	1642	10
		• .	DATE MAILED:	0.77.000

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

	Application No. 09/114,28	5 TSuchu	pa et al	
Office Action Summary	Examiner Yeelha B		Group Art Unit	
—The MAILING DATE of this communicati	ion appears on the cover sh	eet beneath the co	orrespondence address	;—
Period for Reply				
A SHORTENED STATUTORY PERIOD FOR REPLY OF THIS COMMUNICATION.	(IS SET TO EXPIRE 7.3	MONTH(S	FROM THE MAILING D	)ATE
<ul> <li>Extensions of time may be available under the provisions from the mailing date of this communication.</li> <li>If the period for reply specified above is less than thirty (3</li> <li>If NO period for reply is specified above, such period shall</li> <li>Failure to reply within the set or extended period for reply</li> </ul>	(0) days, a reply within the statutory	minimum of thirty (30) IS from the mailing date	days will be considered timely e of this communication .	
Status		IDS.	D 1-	
Responsive to communication(s) filed on	4/13/00 and 3/13	5/00 and 11	118/99	
☑_This action is FINAL.				
☐ Since this application is in condition for allowar accordance with the practice under <i>Ex parte Q</i>			the merits is closed in	
Disp sition of Claims				
Ø Claim(s) 69-76		is/are p	pending in the application	١.
Of the above claim(s)		is/are \	withdrawn from considera	ation.
☐ Claim(s)	-	is/are a	allowed.	
€NClaim(s) 69-76		is/are ı	rejected.	
☐ Claim(s)		is/are	objected to.	
Claim(s)		are sul		tion
Application Papers		•	٠	
☐ See the attached Notice of Draftsperson's Pate	ent Drawing Review, PTO-948	3.		
☐ The proposed drawing correction, filed on	• •		<b>d.</b>	
☐ The drawing(s) filed on is	•	iner.		;
☐ The specification is objected to by the Examine		r'	Anna .	
☐ The oath or declaration is objected to by the E	xaminer.		,	
Priority under 35 U.S.C. § 119 (a)-(d)		-4.5.4.0		4
<ul> <li>□ Acknowledgment is made of a claim for foreign</li> <li>□ All □ Some* □ None of the CERTIFIED</li> <li>□ received.</li> </ul>	copies of the priority docume			÷.
<ul> <li>received in Application No. (Series Code/Se</li> <li>received in this national stage application from</li> </ul>	•	PCT Rule 1 7.2(a)).	•	
*Certified copies not received:				
Attachment(s)				
☐ Information Disclosure Statement(s), PTO-144	9, Paper No(s). ) Sheet	☐ Interview Sumr	nary, PTO-413	
☐ Notice of Reference(s) Cited, PTO-892	70>61/17/1	☐ Notice of Inform	nal Patent Application, P	TO-152

U. S. Patent and Trademark Office PTO-326 (Rev. 9-97)

 $\hfill\square$  Notice of Draftsperson's Patent Drawing Review, PTO-948

Office Action Summary

Other\_\_\_\_

Application/Control Number: 09/114, 285

Art Unit: 1642

#### **DETAILED ACTION**

1. Applicant's amendment filed April 13, 2000 (Paper No: 9/A) is acknowledged.

Accordingly, the application has been amended to insert SEQ ID Nos. where required. Claims 67-76 are being examined.

#### Response to Arguments

- 2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 3. The claims are drawn to a chimeric antibody to the human IL-6R comprised of human constant regions and murine variable regions. The claimed antibody comprises the variable regions of the murine anti-IL-6R antibody termed PM-1, the amino acid sequence of which is recited in the claims.
- 4. Rejection of claims 69-76 under 35 U.S.C.103 (a) is maintained. Applicant's arguments have been considered but are not persuasive for the following reasons. Applicant argues that the reference of Hirata or Kishimoto et al do not teach the unexpected and superior properties of the claimed chimeric antibodies with respect to inhibition in the growth of multiple myeloma cells. Further, Applicant states that Hirata et al "only teach human IL-6R, and hybridomas producing these antibodies". It is submitted that Hirata et al teach antibodies and hybridomas producing antibodies against the human IL-6R and also teach the antibody PM-1 which is the murine antibody that is the source of the variable region that is used to make the claimed chimeric antibody. In view of that the biological and biochemical properties of the said antibody is an intrinsic property of the antibody and its binding activities are dictated by the variable regions (as for the PM-1 antibody for e.g.). Applicants arguments, drawn to the unexpected and superior properties, are not commensurate in scope with the claims which are drawn to the chimeric

Application/Control Number: 09/114, 285

Art Unit: 1642

antibody and nucleic acid encoding the chimeric antibody ((see page "Remarks" 3rd paragraph)-Applicant is requested to number the response pages for ease of reference, in forthcoming responses). The evidences in the form of references submitted in favour of the unexpected properties of the claimed antibodies have been reviewed. It is apparent that the references do not suggest any unexpected or superior properties as for e.g. Sato et al acknowledges that the original murine antibody bound to the human IL-6R and inhibited multiple myeloma cells and that the chimeric, murine and reshaped anti-IL-6R antibodies were equivalent in their reactivities (text to Fig. 5 of the Sato reference). Furthermore, Sato also states that the reactivity of the reshaped antibody is equivalent to the original murine PM-1 antibody (pg 854). Applicants arguments that the chimeric PM-1 antibody has substantially the same activity as the reshaped antibody should also then conclude that the chimeric antibody has substantially the same activity as the original murine antibody. Therefore, no unexpected and superior results of the chimeric antibody are evident. It would have been an obvious choice for one of ordinary skill in the art at the time of the claimed invention to have made the chimeric antibody first (and more specially a murinehuman chimeric) for use in human patients because one of ordinary skill in the art would have been motivated by the success in making chimeric and humanised antibodies as taught by Oi et al or Morrison.

- 5. No claims are allowed.
- It is requested that a supplemental PTO-1449 be submitted with the complete citation 6. including the author names and year of publication included. No PTO-1449 93/13/02 was in file

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 1642

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

- 8. Papers related to this application may be submitted to Group 1640 by facsimile transmission. Papers should be faxed to Group 1640 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center telephone number is (703) 308-4242 or (703) 305-3014.
- Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Geetha P. Bansal whose telephone number is (703) 305-3955. The examiner can normally be reached on Mondays to Thursdays from 7:00am to 4:30pm and alternate Fridays from 7:00am to 3:30pm. A message may be left on the examiner's voice mail service.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Anthony Caputa, can be reached on (703) 308-4995.

10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

June 28, 2000

ALMAY PATENT EXAMINED

SHEET 1 OF 1								
FORM PTO 1449 (modified)						SERIAL	li li	
				67	053466/0234 09/114,285			5
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE 1 7 1999					APPLICANT Masayuki TSUCHIYA et al.			
LIST OF R	EFEREN	ICES CITED BY A	PLICANT(S	) SW GET	FILING DATE GROUP			
(l Date Submitted to PTC	Jse seve D: Nover	ICES CITED BY AI ral sheets if necess mber 17, 1999	ary) £ (RAD	EMARKY	1			
Date Submitted to PTO: November 17, 1999					July 13, 1998			1642
U.S. PATENT DOCUMENTS								
*EXAMINER	EXAMINER DOCUMENT DATE		NAME CLASS SUBCLASS		FILING DATE IF			
INITIAL		NUMBER						APPROPRIATE
					-			
					<u> </u>			
	<u> </u>			<del> </del>	<del></del>	<del> </del>		
					· · ·			
			N PATENT DOCUM	T				
		DOCUMENT NUMBER	DATE	C	OUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
邓	B1	0 413 908 A2	02/1991	EPO				Yes
SP3	B2	0 409 607 A2	01/1991	EPO				Yes
·						<u> </u>		
	ļ							
								·
_	<u> </u>	OT I		NIT/ON/Incl	udina Autha- Tiu-	Data Bartlan	t Pages Fts \	**
- <del>1</del>		OTHE	L POCHWE	191(2) (Indi	uding Author, Title	, Date, Pertiner	ıı rages, Etc.)	
407	C3		Nature Vo	l. 312, p. 643-	646 (1484)			
	C4 Nature Vol. 321, p. 522-525 (1986)							
			<b> </b>			<del></del>		
			ļ					
		,	<u></u>					
,								
	<b> </b>			<del>.</del>	·····		<del></del>	
	-	· · · · · · · · · · · · · · · · · · ·	<del> </del>	···				·
EXAMINER 6/28/90 DATE CONSIDERED DOWN					val-			
<u> </u>		12-2-11-20			<del></del>			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.